

Title (en)
PROCESS FOR PRODUCING CELLULOSE MULTI-FILAMENT WITH LOWER COEFFICIENT OF VARIATION OF SECTION DIAMETER

Title (de)
VERFAHREN ZUR HERSTELLUNG VON CELLULOSE-MULTIFILAMENT MIT GERINGEREM VARIATIONSKOEFFIZIENT DES QUERSCHNITTS

Title (fr)
PROCÉDÉ DE PRODUCTION D'UN FIL MULTIFILAMENT DE CELLULOSE POSSÉDANT UN COEFFICIENT PLUS FAIBLE DE VARIATION DU DIAMÈTRE DE LA SECTION

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Application
EP 07851381 A 20071210

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Abstract (en)
[origin: WO2008082092A1] The present invention relates to a cellulose fiber having a highly homogeneous section, particularly to a cellulose fiber with lower Coefficient of Variation of section diameter (CV(%)). Specifically, the present invention relates to a cellulose fiber wherein Coefficient of Variation of section diameter (CV(%)) of a mono-filament constituting a multi-filament prepared by dissolving a cellulose powder in liquid N-methylmorpholine N-oxide(hereinafter referred to "NMMO") is below 2.5. According to the present invention, a lyocell multi-filament is produced comprising the steps of (i)preparing a spinning solution by homogeneously dispersing, swelling and dissolving cellulose powder in a NMMO solution; (ii)spinning the spinning solution into an air gap through a spinning nozzle; and (iii)coagulating the extruded-spun spinning solution in a coagulation bath. In particular, the coagulating step is adjusted by means of a coagulation coefficient in the range of 0.8 to 1.3 and the coagulation coefficient is expressed as $T_{D</SUB>C</SUB>}/T_{D</SUB>A</SUB>}$, $T_{D</SUB>C</SUB>} = T_{D</SUB>C</SUB>} + T_{A</SUB>90}$ and $T_{D</SUB>A</SUB>}$ and $T_{c</SUB>}$ mean the temperature of a spinning solution, the temperature of cooling air applied in an air gap and the temperature of a coagulation bath, respectively.

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